

SARDAR PATEL UNIVERSITY

ACADEMIC REGULATIONS FOR THE DEGREE OF BACHELOR OF ARCHITECTURE

(EFFECTIVE FROM 17—18 ONWARDS):

<u>ARAr.1.0</u>	<u>ELIGIBILITY</u>
	Eligibility of admissions to First Year Bachelor of Architecture program is based on the guidelines issued by Council of Architecture from time to time.
<u>ARAr.2.0</u>	<u>REGISTRATION</u>
2.1	A student admitted to Semester I must register for all courses in the semester as in the programme of studies. For all subsequent semesters, a student must register for all courses prescribed in the Semester for which he/she is eligible.
2.2	A student must have paid full fees, to be a bonafide student for the semester and he/she must be registered for all courses for which he/she is eligible. Only a bonafide student shall be entitled to facilities on and off the campus, concessions, introductions, etc.
2.3	A student shall not be permitted to take time off more than 2 semesters consecutively for purposes of work experience, travel or alternative studies, or for any other valid reason. A continuous break in studies beyond 2 semesters shall mean that the student status is forfeited and the student is required to apply for readmission.
2.4	A student may be denied Registration if he/she has been debarred or suspended from studies due to disciplinary action taken by the School/College or the University.
<u>ARAr.3.0</u>	<u>DISCIPLINE</u>
3.1	High Standard of discipline is expected from all the students enrolled. Basic guidelines of the code of conduct has been included in the agreements signed by the students & Parents/Guardians, at the time of admission/registration.
3.2	Any non-observance of the laid down norms shall result in disciplinary/administrative action, including expulsion from the courses. Action will be considered based on gravity and line of action initiated by the School/College or the University.
<u>ARAr.4.0</u>	<u>STAGE CLEARANCE</u>
4.1	A student at any time can carry a maximum of 16 credit backlog, except at stage clearance. A student having more than 16 credits backlog shall not be permitted to register for any subsequent semester till he/she has reduced the total backlog to 16 or less credits.
4.2	FIRST STAGE CLEARANCE : A student, at the end of first year must have cleared 40 out of 52 credits of First 2 semesters. This requirement must be fulfilled at the end of Semester II. A student not clearing 40 credits, must repeat the First Year and clear all subjects in which he/she has failed. Full fees as applicable in the case of new registration shall be charged for the repeat year.
4.3	SECOND STAGE CLEARANCE : A student at the end of the Third year (Semester VI), in order to qualify for Office Training (Semester VII), must have cleared all Design Studios including Design Studio of Semester -VI and at least 148 out of 156 credits. A maximum backlog of 8 credits shall be permissible for registration to Semester VII. A student is required to register and pay the prescribed fees at the beginning of the Semester-VII.
4.4	A student in order to register for Semester VIII must have cleared the prescribed credits of 173 out of 181 Credits up to Semester VII- Office Training.
4.5	THIRD STAGE CLEARANCE: A student at the end of Semester-IX, in order to qualify for registration to Semester-X (Dissertation), must have cleared 229 out of 231 credits upto this stage. A maximum backlog of 2 credits shall be permissible for registration to Semester X.
4.6	A student admitted at Higher Levels, through higher-level admissions, coming from other University or recognized colleges, shall be exempted from courses cleared successfully at the University or College he/she is coming from up to the level at which the student is admitted subject to eligibility by the University and course by course grant of exemption as decided by the Equivalence Committee.

	The details of Stage Clearance are summarised as under : BACHELOR of ARCHITECTURE:		
	SEMESTER (FROM)	PERMISSIBLE CREDIT BACKLOG	SEMESTER (TO)
	I	16 CREDITS	II
	II	12 CREDITS	III
	FIRST STAGE CLEARANCE		
	III	16 CREDITS	IV
	IV	16 CREDITS	V
	V	16 CREDITS	VI
	VI	08 CREDITS	VII
	SECOND STAGE CLEARANCE		
	VII	08 CREDITS	VIII
	VIII	16 CREDITS	IX
	IX	02 CREDITS	X
	THIRD STAGE CLEARANCE		
<u>ARAr 5.0</u>	<u>ATTENDANCE</u>		
5.1	A student is expected to attend Studios, Workshops and Lectures regularly at all scheduled times. Minimum attendance requirement is 80% of the total classes held in a course. A student not having the required minimum attendance and a minimum 40% internal assessment in any course, shall be declared non eligible (NE) to take the University Examination in that particular course. The decision of the University shall be treated as final in this matter.		
5.2	In the event of serious illness, a student may be permitted to have a minimum attendance of 60% of the total classes held in a course in consultation with the Principal/Director of the concerned College.		
5.3	Continuous absence without a valid reason for more than 6 weeks shall be deemed as discontinuation of that semester. If a student wishes to continue in the School/College, he/she may seek fresh Registration in the same semester in the next academic year.		
<u>ARAr 6.0</u>	<u>EVALUATION AND EXAMINATION</u>		
6.1	All courses are evaluated by regular assessment of the Term-work during the semester and The end - term written Examination / Jury or Viva by the University. The following pattern shall be followed for Studio, Theory and Workshop/ Seminar courses respectively. <u>A STUDIO /DISSERTATION :</u> 50 % - Periodic assessment of Term-work (including time problems during the semester) 50 % - End-term Jury/Viva. <u>B THEORY :</u> 50 % - Periodic assessment (quizzes, papers, assignments/tests etc.) 50 % - End-term written examination <u>C WORKSHOP/SEMINAR :</u> 50 % - Periodic assessment of Term-work(assignments /exercises/presentation etc.) 50 % - End-term submission/report or viva or both.		
6.2	The minimum level for passing and obtaining credits is 45% course wise. Minimum passing percentage in Internals/ Continual Assessment is 40 % and in external University Examination(Theory/ Studio) is 50%. Passing is both the heads (Internal and External) is mandatory to earn full credits of the subject. The rules for Condonation and promotion shall be as per Ordinances laid down by University.		
6.3	For award of Class in the Final Year (Semester IXth and Xth), the following standards shall be applicable to the total marks earned in courses of Semester IX & X. 1. Distinction 66% and above 2. First Class 60% and above 3. Second Class 50% and above 4. Pass Class 45% and above		
6.4	Exemption for head of passing in any subject is 50% and above(applicable for repeat year/semester)		

6.5	A student may apply for rechecking / reassessment as per rules of the University if the results of any course is felt to be unfair or erroneous.
<u>ARAr 7.0</u>	<u>REPEAT EXAMINATION</u>
7.1	It is student's responsibility to seek information / advice regarding a repeat examination.
7.2	A student who has failed in any subject shall appear for the examination as and when it is conducted by the University. The marks of Term work shall be carried over from the semester in which term work was completed successfully.
<u>ARAr 8.0</u>	<u>REPEAT REGISTRATION</u>
8.1	A student who fails to clear Term work and or internal assessment of a course as per Clause 5.0 and 6.0 shall have to register for the course and repeat it fully in a subsequent semester. In such cases, none of the marks/ credits earned earlier shall be carried over.
8.2	A student must make a written application for re- registration to a particular course/s. If there are more than ten students repeating a particular course, the School/College may at its discretion make arrangement for the students to attend classes.
8.3	A student seeking admission at Higher Levels/ seeking transfer from another University or recognized colleges, shall be exempted from courses cleared successfully at the University or College he/she is coming from up to the level at which the student is admitted subject to eligibility by the University and course by course grant of exemption as decided by the Equivalence Committee. This admission shall be done strictly as per the procedure laid down by the University and according to the guidelines of Council of Architecture.
<u>ARAr 9.0</u>	<u>RELATED STUDY PROGRAMS(RSP)</u>
	Students for Ist, and IInd year have to go for RSPs as part of their academic curriculum. Each RSP carries 02 credits and it is important to earn these credits in order to attain a class in final year and for a Award of Degree.
<u>ARAr 10.0</u>	<u>OFFICE TRAINING (Semester VII)</u>
10.1	A student undertaking Office Training must satisfy conditions of training and submit the necessary reports for evaluation as specified in the curriculum.
10.2	On examination of the report and a presentation by the student, the Examiners would award the credits for Training.
<u>ARAr 11.0</u>	<u>DISSERTATION</u>
11.1	A student must register for Dissertation semester with 3 copies of the proposal on A4 Size papers with topic, name, ID No., the name of the Guide and his / her acceptance letter.
11.2	After the proposal has been submitted, a student shall not be permitted to change the topic of Dissertation substantially without prior permission of the Dissertation Committee.
<u>ARAr 12.0</u>	<u>AWARD OF DEGREE</u>
	A student will be awarded the degree of Bachelor of Architecture (B.Arch) after successful completion of the Five Year Programme of study.

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**SARDAR PATEL UNIVERSITY,
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DETAILED SYLLABUS FOR 5-YEAR BACHELOR OF ARCHITECTURE PROGRAM
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B.Arch-I: SEMESTER I		
AR 2101 DESIGN STUDIO - I	(L=0, S=07, W=0)	CREDITS = 05
INTERNAL ASSESSMENT (T.W./PERIODIC REVIEW) = 50		CONTACT HRS/WK = 07
UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA) = 50		
Focus :	Anthropometrics and Shelter.	
Contents:	Anthropometrics: Human dimensions and proportions; Basic Shelter: Understanding of shelter as a resultant of various forces: culture climate, site & technology: exercises to provide exposure to various types of shelter. Analysis of various types	
Projects:	Site visits to expose students to diversity of shelter & spaces. Exercises for analysis of various types/categories of space. Single-function small space design, with emphasis on above topics / issues (A number of design exercises must be done, relating to human scale and spatial requirements for different activities and functions)	
Skills :	Sketching and model making for 3D visualization may be stressed. Single line orthographic drawings of designed spaces may be attempted for final project, using models to facilitate visualization.	
REFERENCES :		
Sr.No.	Title	Author
01.	Time Saver's Standards	Edited by Joseph De Chicera
02.	Neufert's Data	Ernst Neufert
03.	New Metric Handbook	Patricia Tutt
04.	Architecture: Form, Space and Order	Francis D.K. Ching
AR 2102 ARCHITECTURAL GRAPHIC TECHNIQUES (AGT-I)	(L=0,S=7,W=0)	CREDITS = 05
INTERNAL ASSESSMENT (T.W./PERIODIC REVIEW) = 50		CONTACT HRS/WK = 07
UNIVERSITY EXAMINATION (THEORY) = 50		
Focus :	Develop graphical and drawing skills as tools for visualization and representation of design.	
Contents:	Familiarization with drawing materials and equipment Architectural lettering and Understanding of scales. Line (orthogonal, curvilinear) intensity and precision in plans, sections, elevations etc Principles of Plane and Solid Geometry, Orthographic Projections of points, lines, planes and solids, Sections of solids (simple and complex) objects, Surface Development- Paper Models and Drawings Isometric and Axonometric view Making basic drawings: Plan, elevation and section of a building	
REFERENCES:		
Sr.No.	Title	Author
01.	Engineering Drawing	N.D.Bhatt & V.M.Panchal
02.	Rendering with Pen & Ink	Robert Gill

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03.	Visualization Techniques	Richard B. Leinbach
04.	Perspective for the Architect	Georg Schaarwachter
AR 2103 BASIC DESIGN & WORKSHOP-I (L=1, S=3, W=3) CREDITS = 05		
INTERNAL ASSESSMENT (TERMWORK/EXERCISES) =50		CONTACT HRS/WK = 07
UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/VIVA) = 50		
Focus :	Fundamentals of visual perception	
Contents:	<p>Drawing and sketching exercises in various media. Analysis of visual impressions and representing in various media. Understanding elements of visual perception - line, form, space, colour, texture, pattern etc. Relationship of forms and form space. Working with various materials relating visual and tactile qualities to the representative Drawings and sketches making basic geometrical forms and simple shapes in various materials and representing same in drawing from various perspectives, eye levels and viewing angles. (Materials like paper sheets, clay, thermocol, wood, Plaster of Paris, stone, plastics etc.).</p>	
Method:	Skills to be developed through a series of studio exercises with model making in the workshop classes	
REFERENCES:		
Sr.No.	Title	Author
01.	Form, Space & Order	Francis K.Ching
02.	Free hand Drawing Self Taught	Arthur Guptill
03.	Pencil Sketching	Thomas Wang
AR 2104 BUILDING TECHNOLOGY and MATERIALS - I (L=2,S=3, W=0) CREDITS = 04		
INTERNAL ASSESSMENT (TERM WORK /EXERCISE) = 50		CONTACT HRS/WK = 05
UNIVERSITY EXAMINATION = 50		
Focus:	Understanding basic building elements, Introduction of basic building materials, construction process	
Contents:	<p>Introduction to various Building components - Structural & Non-Structural; Bond – Types; Masonry – Mud, Bricks, Stone; Pointing Foundations – Types. Materials - Bricks, stone, Mud, Timber, Lime, Cement, Stone, different types of timber their seasoning quality, etc.; their physical and behavioral properties, methods of application, criteria for selection of materials based on design</p>	
Method:	<p>Lectures on basic construction of building; Class exercises, and case studies. Study of various components of existing building through sketches & models, Site visits Lectures on building materials & their use in building</p> <ul style="list-style-type: none"> - Visit to manufacturing site e.g. brick kiln, saw mills - Exercises, assignments, drawings - Case studies and documentation. 	
REFERENCES:		
Sr.No.	Title	Author
01.	Construction of Building Vol.-I	R.Barry

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02.	Building Construction Metric Vol.-II	W.B.Mckay
03.	Construction Technology Vol.-I	Chudley
AR 2105 HISTORY OF ART & CULTURE (L=2, S=0, W=0) CREDITS =02		
INTERNAL ASSESSMENT (TERM WORK /ASSIGNMENTS)=50		CONTACT HRS/WK= 02
UNIVERSITY EXAMINATION (THEORY) = 50		
Focus :	Study of Man and his culture to form- derivation for design – physical manifestation in the contemporary world.	
Contents :	Study of ancient world through its history, art, religion, philosophy, etc. to earmark cultural landmarks responsible for shaping human surroundings. Study of medieval and modern times to understand the cultural development through the ages. Architecture and its relationship with other cultural realms, Architecture and society	
Method :	Teaching may be lecture-based, along with documentaries/films, readings etc., with a number of assignments/exercises to encourage self-learning as individuals or in groups	
REFERENCES:		
Sr.No.	Title	Author
01.	Ascent of Man	J. Bronowski
02.	History of World	Arnold Toynbee
03.	History of Civilization	C.E.M. Joad
AR 2106 ENGLISH AND COMMUNICATION SKILLS (L=1, S=0, W=2) CREDITS =02		
INTERNAL ASSESSMENT (TERM WORK /ASSIGNMENTS/EXERCISES)=100		CONTACT HRS/WK= 03
Focus:		
Contents:	Basics of Communication: Definition and process of Communication Kinesics; Paralinguistic; Phonemics; Presentation Strategies: Defining the purpose, how to make an effective presentation; Analyzing audience and locale; Organizing content	
Method:	A series of small practical exercises and demonstration.	
AE 2107 ELECTIVES-I (L=0, S=0, W=4) CREDITS =02		
INTERNAL ASSESSMENT (TERM WORK /ASSIGNMENTS/PORTFOLIO OF EXERCISES) =100		CONTACT HRS/WK= 04
Focus :	To help students in exploring their aptitudes and in developing skills in any related field like painting, sculpture, sketching ceramic work, photography etc.	
Contents :	A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time: AE 2108/1 - Painting AE 2108/2 - Photography AE 2108/3 - Pottery & Ceramic AE 2108/4 - Sculpture AE 2108/5 - Digital Architectural Presentation AE 2108/6 - Performing Arts	

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	AE 2108/7 - Calligraphy AE 2108/8 - Graphic Design AE 2108/9 - Textile AE 2108/10-Print Making
Method :	Portfolio and Project Submission.
SEMESTER II	
AR 2200 RELATED STUDY PROGRAMME CREDITS = 02	
INTERNAL ASSESSMENT (TERM WORK) =100	
Focus	To enhance observation and visual perception; develop free hand drawing skills using different techniques, tools and media.
Content	Visit/s to site/s (preferably historical); sketching various natural and manmade objects and settings, visual representation through tools like pencils, chalk, charcoal, ink , oil paints, water colours, etc.
AR 2201 DESIGN STUDIO - II (L=0,S=7,W=0) CREDITS =05	
INTERNAL ASSESSMENT (TERM WORK) =50 CONTACT HRS/WK =07	
UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/ VIVA) =50	
Focus :	Human Scale, Space/Form and the design process.
Contents:	Human Scale: Concept of Scale & Proportions. Form : Elements of Form, various forms and their characteristics. Space: Elements of space making (Enclosure and openings) and exploring the principles of combination. Types of Spaces: Activity space, Circulation spaces, Waiting spaces Movement & Linkages: Kinds and spatial values. Quality of Space: Effects of light, colour, material, texture, views. Design Process: Requirements/needs of project, site-analysis, Activity and other areas and interrelationships, programming & ordering mechanisms, abstract concepts.
Projects :	Small projects of low complexity with focus on above aspects.
Skills :	Models; application of skills learnt in AGT course such as Sciography / perspective, basic rendering techniques in architectural drawings
REFERENCES:	
Sr.No.	Title Author
01.	Architecture: Form, Space & Order Francis D. K.Ching
02.	Scale in Architecture Frank Orr
03.	Architecture as Space Bruno Zevi
AR 2202 ARCHITECTURAL GRAPHIC TECHNIQUES (AGT-II) (L=0, S=6,W=0) CREDITS =04	
INTERNAL ASSESSMENT(EXERCISES) = 50 CONTACT HRS/WK =06	
UNIVERSITY EXAMINATION = 50	
Focus :	To develop skills for technical representation of architectural designs Projects.
Content :	Three dimensional representation of simple & complex forms and architectural objects Isometric, axonometric and perspective (One-point, two-point)

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	Three dimensional representations of interior of spaces: Sectional perspectives, axonometric. Sciography of simple & complex forms, shadows on horizontal, vertical, and inclined planes and on objects' own surfaces. Sciography on orthographic, isometric drawings Measured Drawing Exercises	
Method :	A series of exercises to be completed in studio/classroom.	
REFERENCES:		
Sr. No.	Title	Author
01.	Sociography & Perspective	Malik
02.	Perspective for the Architects	Georg Schaarwachter
03.	Rendering with Pen & Ink	Robert Gill
04.	Solid Geometry	N.D.Bhatt
AR 2203 BASIC DESIGN & WORKSHOP-II (L=0,S=4, W=3) CREDITS =05		
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50		CONTACT HRS/WK = 07
UNIVERSITY EXAMINATION = 50		
Focus :	Design principles - natural and manmade objects.	
Content :	Observing and analysing design of natural objects and manmade objects including geometry pattern, texture, colour composition, solid-void relationships etc. Structure and Composition of shapes and forms. Effects of colour and texture in modification of composition & its perception. Workshop on colour and composition	
Method	Series of exercises in studio and ARtual making of objects, and presentation drawings in workshop.	
REFERENCES:		
Sr. No.	Title	Author
01.	Form, Space & Order	Francis K.Ching
02.	Free hand Drawing Self Taught	Arthur Guptill
03.	Pencil Sketching	Thomas Wang
AR 2204 BUILDING TECHNOLOGY AND MATERIALS-II (L=2,S=3,W=0) CREDITS =04		
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50		CONTACT HRS/WK = 05
UNIVERSITY EXAMINATION = 50		
Focus :	Advanced materials used in construction of Buildings	
Content :	Metal - Ferrous and Non – ferrous - Iron, Steel, Market forms of Steel, Aluminium, Copper, Brick masonry (continued) – Acute / obtuse angled joints, cavity wall construction. Arches – types and their construction. Simple wooden joinery	
Method :	Lectures on materials and construction of building elements, conventional practices etc. Studio Exercises and case studies for above. Site Visit to various factories, processing sites etc.	
REFERENCES:		
Sr.No.	Title	Author
01.	Construction of Building – Vol.2	R.Barry
02.	Building Construction Metric Vol.1	W.B.Mckay

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03.	Building Materials & Components	CBRI, Roorkee
04.	Building Construction	C.B. Punmia
AR 2205 STRUCTURES-I (L=2,S=0,W=0) CREDITS = 02		
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50		CONTACT HRS/WK = 02
UNIVERSITY EXAMINATION = 50		
Focus :	Fundamentals of Structure	
Content :	<p>Introduction of Structure – History, basic terminology of mechanics like mass, force, scalar and vector, basic engineering units, units conversions , Forces (natural and manmade), Primary elements of structure and their behavior ,Concept of Load bearing and Frame structure , Importance of foundations</p> <p>Force and force systems definitions and sketches</p> <p>Law of parallelogram, triangle- Examples and limitation</p> <p>Law of Polygon of forces – Examples (analytical method)</p> <p>Lami’s theorem – Free body and space diagram – Examples.</p> <p>Concept of equilibrium, Moment and Couple.</p> <p>Types of loads, supports and their reactions (only point and U.D.L.).</p> <p>Numerical on Shear force and bending moment Diagrams for Simply supported beams, Cantilever Beams and Overhang beams Definition of Point of Contra flexure</p> <p>Center of Gravity and Moment of Inertia Definition</p> <p>Examples -Center of Gravity(One and Two Dimensional)</p> <p>Examples -Moment of Inertia (parallel and perpendicular axis theorem).</p>	
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.	
REFERENCES:		
Sr.No.	Title	Author
01.	Fundamentals of Structures	Salvadori
AR 2206 SURVEYING & LEVELLING (L=2, S=0, W=2) CREDITS = 02		
INTERNAL ASSESSMENT(TERMWORK/EXERCISE) = 50		CONTACT HOURS =04
UNIVERSITY EXAMINATION(Theory and Practical) = 50(25+25)		
Focus :	Techniques for preparation of measured drawings and setting out buildings on site	
Content :	<p>Understanding about various instruments used for surveying, chain survey and compass survey.</p> <p>Preparing measured drawings of surveyed area and buildings.</p> <p>Levelling : Equipment used, principles and practice.</p> <p>Taking vertical and horizontal measurements on plain and contoured sites, calculation of areas, mapping contours and site profiles etc.</p> <p>Setting out of buildings on a site.</p>	
Method :	Practical demonstration and documented site work is a must to familiarise students with use of all relevant instruments, in addition to lectures on the basic concepts and theory.	
REFERENCES:		
Sr.No.	Title	Author
01.	Surveying & Levelling Vol – I	T.P.Kanetkar & Kulkarni
02.	Surveying & Levelling Vol. – 1	Punamia

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03.	Surveying & Levelling	Rangwala
AR 2207 ENGLISH AND COMMUNICATION SKILLS (L2, S=0, W=0) CREDITS =01		
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100		CONTACT HRS/WK= 02
UNIVERSITY EXAMINATION = 00		
Focus :	Spoken English	
Content :	Reading Fluency : Introduction; Reading strategies; Techniques of Reading Developing Reading Comprehension Writing : Mastering the final skill: Paragraphs writing; Business letters ;Report / MOM Writing ; E-mail etiquette ;Telephone conversation	
Method :	Demonstration and practicals	
REFERENCES:		
Sr.No.	Title	Author
1	Aasaan Angreji	Nagendra Vijay
AE 2208 ELECTIVES -II (L=0, S=0, W=3) CREDITS =02		
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100		CONTACT HRS/WK= 03
Focus :	To help students exploring their aptitudes and in developing skills in any related field like painting, sculpture, sketching ceramic work, photography etc.	
Content :	A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time : AE 2208/1 - Painting AE 2208/2 - Photography AE 2208/3 - Pottery & Ceramic AE 2208/4 - Sculpture AE 2208/5 - Digital Architectural Presentation AE 2208/6 - Performing Arts AE 2208/7 - Calligraphy AE 2208/8 - Graphic Design AE 2208/9 - Textile AE 2208/10-Print Making	
Method :	Portfolio and Project Submission.	
B.Arch-II: SEMESTER III		
AR 2301 DESIGN STUDIO - III (L=0, S=09, W=0) CREDITS = 06		
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50		CONTACT HRS/WK = 09
UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA) = 50		
Focus :	Material and Structure as determinants of Architectural Form.	
Contents:	Materials – properties, character. Basic structural system in various materials (timber, mud, brick, Fabric etc.) Structure as a form giver for various materials.	
Projects:	Project/s in different contexts to address variations in material Time Problems may be set as exercises based on other material. Design problem & use of at least two building material to	

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	make a structures.
Skills :	Preparation of architectural design drawings and models. Site Visits, case studies.
REFERENCES:	
Sr.No.	Title
01.	Time Saver's Standards
02.	Neufert's Data
03.	New Metric Handbook
04.	Architecture: Form, SpARe and Order
	Author
	Edited by Joseph De Chicera
	Ernst Neufert
	Patricia Tutt
	Francis D.K. Ching
AR 2302 BASIC DESIGN & WORKSHOP-III (L=0,S=4,W=3) CREDITS = 05	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 07	
UNIVERSITY EXAMINATION(CRIT/TIME PROBLEM/VIVA) = 50	
Focus :	Study of Colour on form, as used in manmade environment.
Contents :	Analysis of design principles and composition used in a manmade environment using space abstractions in two and three dimensions. Colour as a Form giver to spaces. Colour : Theory and systems, role and effects of colour and texture in spaces. Analysis of space using monochromatic or Achromatic abstractions in Two-Dimension. Behaviour and effects of coloured compositions (enlargement, shrinkage of spaces, emphasis, warmth and coolness etc.). Rythmn, discord, Harmony, Golden Section.
Method :	Model making in various materials as an aid to design, composition and analysis (use wood, mud, paper, Acrylic, cork, etc.). Composition through paintings.
REFERENCES:	
Sr. No.	Title
01.	Architecture: Form, Space & Order
02.	Visual Studies
03.	Art of Seeing
	Author
	Francis D. K. Ching
	Frank M.Yung
	Paul Zelenski
AR 2303 BUILDING TECHNOLOGY & MATERIALS-III (L=2, S=3, W=0) CREDITS = 04	
INTERNAL ASSESSMENT(TERMWORK/EXERCISES) =50 CONTACT HRS/WK = 05	
UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/VIVA) =50	
Focus :	Understanding basic Structural Systems, Structural Materials, Construction & erection process.
Contents:	Research and Development of newer Materials and their use in Building Construction. Building Elements made out of wood, steel, PVC, aluminium etc. Various types of doors and windows (Wooden , steel and Aluminium), including treatment of sills, lintels etc. / m. s. grill, various types of fittings & Hardware, Joinery Compound Wall and gates
Method :	Illustrated lectures, case studies of Traditional / Conventional practices. A number of studio Exercises for making drawings of typical details.

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AR 2304 HISTORY OF ARCH-I		(L=2,S=0, W=0)	CREDITS = 02
INTERNAL ASSESSMENT(TERM WORK /EXERCISE) = 50			CONTACT HRS/WK = 02
UNIVERSITY EXAMINATION = 50			
Focus :	A mapping of architectural developments over the world from ancient times to 11th century A.D.		
Contents:	<p>Architecture of ancient civilizations : Harappan, Mesopotamian, Egyptian, Central American, European (Greek & Roman), Chinese.</p> <p>Indian architecture from Harappan period, through Buddhist era to Gupta period.</p> <p>Developments across the subcontinent in the late Classical period.</p> <p>Development of Western civilization : Early Christian, Byzantine, Medieval, Gothic Emphasis should be on presenting a chronological picture of architectural developments, with comparison to trends in Indian subcontinent and elsewhere</p>		
Method :	Lectures, Case-Studies, analytical exercises on built-form of various periods to understand the architectural images of various times and places .		
REFERENCES:			
Sr.No.	Title	Author	
01.	Indian Architecture (Buddhist & Hindu) – I	Percy Brown	
02.	Indian Architecture (Islamic) – II	Percy Brown	
03.	A History of Architecture	Sir Bannister Fletcher	
04.	Encyclopedia of Architecture	Joseph Gwilt	
AR 2305 STRUCTURES-II			
		(L=1, S=0, W=2)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50			CONTACT HRS/WK= 03
UNIVERSITY EXAMINATION (THEORY) = 50			
Focus :	Mechanics of Structure		
Contents :	<p>Architectural considerations in material selection for structural use. Concept of strength elastic and plastic material.</p> <p>Concept different mechanical properties of material (tensile, compressive, flexure, toughness, and malleability, fatigue with definition)</p> <p>Concept of stress-strain. Types of stress, its importance, elastic limit, yield point, permissible stress, ultimate stress and elongation, concept of stress-strain curve, example based on above topics</p> <p>Analysis of fixed Beam-numerical (Central Point load and Uniformly distributed load by using formula only and shear force & Bending moment diagram.</p> <p>Analysis of Continuous Beam (Definition of Fixed end moment, carry over moment, Relative stiffness and Distribution factor, --numerical for all end with fixity)-Moment Distribution Method</p> <p>Analysis of Truss –numerical (methods of joint only for small truss, up to 8-10 members)</p> <p>Analysis of Frames – non-sway type Portal frames, reason of sway, difference (No examples only concept)</p> <p>Types of Arch, and analysis of three hinges parabolic Arch (only reaction at supports)</p> <p>Concept and importance of deflection in design of structures, (No examples)</p>		
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.		

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AR 2306 CLIMATE AND BUILDING			(L=2, S=0, W=0)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50			CONTACT HRS/WK= 02	
UNIVERSITY EXAMINATION (THEORY)			= 50	
Focus :	Built Environment & Climate			
Contents:	Climate – Constituent elements, Classification of tropical climatic zones. Micro & Macro climate. Thermal comfort & principles of Thermal Design. Ventilation – Air movement & fenestration, solar orientation, Sun path pattern & shading devices. Traditional House Form & Settlement pattern in various tropical climates; vernacular architecture Design Tools – Mahoney Tables, Sun Path diagrams, etc. Day lighting – components, architectural methods of borrowing day light; control of glare.			
Method :	Exercises to enhance understanding of above concepts. Application of concepts in design work. Time problem to address design issues from climatology point of view.			
References:				
Sr.No.	Title	Author		
01.	Manual of Tropical Housing	Otto Koenigsberger		
02.	Design Primer for Hot Climate	Allan Konya		
03.	Design with Climate	Victor Olgyay		
04.	Man, Climate & Architecture	B Givoni		
05.	Climatic Building Design	Donald Watson		
06.	Building in Hot Climates	Building Research Establishment		
AR 2307 CAD-I				
			(L=0, S=0, W=3)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50			CONTACT HRS/WK= 03	
UNIVERSITY EXAMINATION (PRARTICAL)			= 50	
Focus :	Fundamentals of Computer and getting acquainted with basic commands for computer drawings.			
Contents:	Fundamentals of Computer, terminology used, basics of various operating systems; Terminology of Windows; Introduction to Autocad Creating Drawings: Line, Circle, rectangle, Polygon, Arc commands Modifying Drawings: Move, copy, offset, mirror, trim, extend etc. commands Drawing Tools: Using co-ordinate system, polar and ortho dynamic Input, object snap etc. Dimensioning and Text: Creating single line text and multiline text.			
Method :	Practice in Computer Lab			
AE 2308 ELECTIVES-III				
			(L=0, S=0, W=4)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS/PORTFOLIO OF EXERCISES)=100			CONTACT HRS/WK= 04	
Focus :	To help students in exploring their aptitudes and in developing skills in any related field like painting, sculpture, sketching ceramic work, photography etc.			
Contents :	A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time : AE 2308/1 – Painting (Oil)			

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	AE 2308/2 - Photography AE 2308/3 - Pottery & Ceramic AE 2308/4 - Sculpture AE 2308/5 – Bamboo work AE 2308/6 - Performing Arts AE 2308/7 - Calligraphy AE 2308/8 - Graphic Design AE 2308/9 - Textile AE 2308/10-Print Making	
Method :	Portfolio and Project Submission.	
B.Arch-II: SEMESTER IV		
AR 2400 RELATED STUDY PROGRAMME	CREDITS = 02	
INTERNAL ASSESSMENT (TERM WORK) =100		
Focus	Document an area/locality through measured drawings, reading of history, morphological development etc	
Content	Select a small area or locality for documentation through measured drawings, observations, dialogues etc for the purpose of designing in the physical context.	
AR 2401 DESIGN STUDIO - IV (L=0,S=9,W=0) CREDITS =06		
INTERNAL ASSESSMENT (TERM WORK)	=50	
UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/ VIVA)	=50	
Focus :	Analysis of context as a determinant of Architectural character. Study of built form with special reference to climate, material , social & cultural context, physical environment	
Contents :	Cluster & community - street pattern Traditional design and construction principles Issues of modernity and tradition	
Projects :	Housing studies of existing settlements. Complete architectural design of project/s of different nature at level of residence & small institution/ work place in the context of a traditional settlement. Dwelling cluster design project (15-20 units to form a small community). Work done in the Related Study Program or the measured drawing of traditional settlement may be used as the context. Interior design may be included as part of programme.	
Skills :	Documentation & analysis of existing / traditional settlements; programmed and un-programmed spaces; Full range of architectural graphic techniques and model making in various media must be applied.	
REFERENCES:		
Sr.No.	Title	Author
01.	Design Strategies in Architecture	Edited by Geoffrey Baker
02.	Responsive Environment	Cutler & Cutler
03.	A Pattern Language	Christopher Alexander
04.	Scale in Architecture	Frank Orr

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AR 2402 BASIC DESIGN & WORKSHOP-IV		(L=0, S=3, W=3)	CREDITS =04
INTERNAL ASSESSMENT(EXERCISES)		= 50	CONTACT HRS/WK =06
UNIVERSITY EXAMINATION		= 50	
Focus :	Exercises on abstract concepts and ideas in design.		
Content :	The design process and role of abstract concepts and ideas as an ordering mechanism to express ideas. Symbolism and communication, identity, character and imageability Exploring environmental qualities like light and colour, texture & scale and its usages in expressing design concepts.		
Method :	To explore and analyze above aspects for selected architectural projects. To abstract design work to help expression of personal concepts or ideas.		
REFERENCES:			
Sr. No.	Title	Author	
01.	Visual Studies	Frank M.Yung	
02.	Architecture: Form Space & Order	Francis D.K.Ching	
03.	Art of Seeing	Paul Zelenski	
AR 2403 BUILDING TECHNOLOGY & MATERIALS-IV			
		(L=2,S=3, W=0)	CREDITS =04
INTERNAL ASSESSMENT(TERM WORK /EXERCISES)		= 50	CONTACT HRS/WK = 05
UNIVERSITY EXAMINATION		= 50	
Focus :	Understanding of various building components, their place and composition within the systems, possibilities of different material use. Understanding principles & possibilities of various construction Technology & their applications.		
Content :	Construction of Wooden Floor- Single , Double and Upper and Mezzanine and Floorings Flooring materials-wood, mud, brick, steel, cement, stone etc. –Selection criteria for choice of material Staircase, Stairs, Steps, Ramps. Wooden roof (Upper Floor and pitched roof-truss types) construction details Retaining walls, basement		
Method :	Market survey & Resource file to be maintained. Conventional practices, documentation. Case studies & Studio exercise		
REFERENCES:			
Sr. No.	Title	Author	
01.	Construction of Buildings – Volume – II	R. Barry	
02.	Construction of Buildings – Volume – I	W.B.Mckay	
03.	Construction Technology – Volume – I & II	Chaudhry	

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AR 2404 STRUCTURES-III		(L=2,S=0,W=2)	CREDITS =03
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50			CONTACT HRS/WK = 04
UNIVERSITY EXAMINATION		= 50	
Focus :	Understanding Reinforced Concrete structures		
Content :	<p>Understanding concrete structures</p> <p>Understanding structural drawings</p> <p>Use of code of special practice for R. C. C. members (Indian Standards IS 456-2000)</p> <p>R. C. C. STRUCTURES: R. C. C. Theory, Limit State Method, Definition of Permissible stresses, balanced section, under reinforced and over-reinforced section.</p> <p>Analysis and Design of beam (Singly and Double), Concept of Flanged beam</p> <p>Axially and eccentrically loaded columns, types of columns. Design of axially loaded columns & reinforcement detailing.</p> <p>Design of simple one-way and two-way slab ;concept of continuous slab, R. C. C. Staircase Design only waist slab type.</p> <p>Application of thumb rules for beams, columns, Slabs for fixing sectional properties</p> <p>Types of foundations, importance of soil & other factors while recommending type of foundation, concept of combined and eccentric footings, Design of R. C. C. Footing for axial loads.</p>		
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.		
AR 2405 HISTORY OF ARCHITECTURE-II		(L=2,S=0,W=0)	CREDITS = 02
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50			CONTACT HRS/WK = 02
UNIVERSITY EXAMINATION		= 50	
Focus :	To familiarize students with architectural developments since about 11th century AD to 19 th Century A.D.		
Content :	<p>Indian Architecture after the introduction of Islamic influences, various regional styles during Islamic period.</p> <p>Colonial architecture in India- Imported styles and trends.</p> <p>Developments in Europe after the Medieval period- The Renaissance, Baroque etc.</p>		
Method :	Lectures, Case-Studies, analytical exercises on built form to understand the architectural images of various times and places.		
REFERENCES:			
Sr.No.	Title	Author	
01.	History of Modern Art: Painting, Sculpture, Architecture	H.H. Arnason	
02.	Indian Architecture (Islamic)	Percy Brown	
03.	A History of Architecture	Sir Bannister Fletcher	
04.	Encyclopedia of Architecture	Joseph Gwilt	

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AR 2406 BUILDING SERVICES-I		(L=1, S=2, W=0)	CREDITS = 02
INTERNAL ASSESSMENT(TERMWORK/EXERCISE) = 50			CONTACT HRS/WK =03
UNIVERSITY EXAMINATION(Theory) = 50			
Focus :	Building Services - Water Supply and Waste Disposal.		
Content :	<p>Water Supply - Sources, demand & elements of the system, layout and design of system, connections with municipal supply , rain water harvesting systems.</p> <p>Lay out for water supply, drainage & rain water system for a unit (Bungalow, Tenement or Flat) including calculations for storage units e.g. underground and terrace tanks.</p> <p>Waste disposal - Sullage and sewage. Various systems of waste removal and disposal. Fitting of various elements of the system, layout design</p> <p>Septic Tank –Necessity, Constructional and operational features</p> <p>Storm water disposal systems - combined and independent systems.</p>		
Method :	<p>Basic information to be given in lectures and application shown in case studies. A market survey for materials & rates may be carried out in order to include new products in market.</p> <p>Preparation of drawings for water supply, drainage & rainwater collection & disposal system for a unit showing details of bathrooms, toilets kitchen, terrace and their connection to the house drainage system.</p>		
REFERENCES:			
Sr. No.	Title	Author	
01.	Water Supply & Sanitary Engineering	G.S.Birdie	
02.	Public Health Engineering	Rangwala	
03.	Building Services	F.Halls	
AR 2407 CAD-II		(L=0, S=0, W=3)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50			CONTACT HRS/WK= 03
UNIVERSITY EXAMINATION (PRARTICAL) =50			
Focus :	Thorough application of knowledge of 2 D drawings.		
Content :	<p>Layer, Block and XRef</p> <p>Creating layers and assigning objects</p> <p>Using layer properties manager</p> <p>Editing object properties</p> <p>Inserting blocks</p> <p>Attaching external references</p> <p>Preparing layout and plotting;</p> <p>Annotation;</p> <p>Hatch, Super hatch</p> <p>Dimension editing</p> <p>Presentation & detail drawing preparation</p> <p>Isometric view</p> <p>Introduction to 3 D Solid modeling</p> <p>Editing and visualizing solids</p> <p>Rendering and presentation</p>		
Method :	Practice in Computer Lab		

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AE 2408 ELECTIVES -II		(L=0, S=0, W=4)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100			CONTACT HRS/WK= 04
Focus :	To help students exploring their aptitudes and in developing skills in any related field like painting, sculpture, sketching ceramic work, photography etc.		
Content :	<p>A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time :</p> <p>AE 2408/1 - Painting AE 2408/2 - Photography AE 2408/3 - Pottery & Ceramic AE 2408/4 - Sculpture AE 2408/5 - Digital Architectural Presentation AE 2408/6 - Performing Arts AE 2408/7 - Calligraphy AE 2408/8 - Graphic Design AE 2408/9 - Textile AE 2408/10-Print Making</p>		
Method :	Portfolio and Project Submission.		
B.Arch-III: SEMESTER V			
AR 2501 DESIGN STUDIO - V		(L=0, S=012, W=0)	CREDITS = 08
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50			CONTACT HRS/WK = 12
UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA) = 50			
Focus :	Understanding character of Institution. Design of Institutional Campus/Complex		
Contents:	<p>Organization and disposition of spaces. Relationship of different functional, service and movement areas. Diversity of user groups, circulation routes. User group needs and client requirements. Influence of culture, climate & technology. Site planning/layout/zoning/ circulation. Landscaping. Idea of an Institutional image/character Ordering theme / idea / concept.</p>		
Projects:	<p>Design of an Institution of medium level complexity with a mix of functions. Analysis of various types of case studies of Institutions in different cultures and time periods may be done as group work. Design to be prepared keeping Working Drawings exercise in view. NASA Briefs for ANDC or other trophies may be refined to be taken up as studio programmes in part or full.</p>		
REFERENCES:			
Sr.No.	Title	Author	
01.	Time Saver's Standards	Edited by Joseph De Chicera	
02.	Neufert's Data	Ernst Neufert	
03.	Traditional Indian Architecture	Yatin Pandya, Mapin Publishing	

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04.	Analysis of Form	Le Corbusier - Geoffrey Baker
AR 2502 BUILDING TECHNOLOGY-V (L=2,S=3,W=0) CREDITS = 04		
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50		CONTACT HRS/WK = 05
UNIVERSITY EXAMINATION (THEORY) = 50		
Focus :	Understanding the behaviour of two different materials i.e. Concrete and steel their various possibilities, Building elements and components, different processes and products.	
Contents :	Materials -Steel and Concrete - R.C.C. Elements - P.C.C. Elements - Precast Elements Protection and Safety measures in building construction (Fire, Earthquake, lightning) Constructional/Expansion joints Different type of slabs and vaults. Damp proofing & Water proofing, Thermal Insulations, Anti termite treatments RCC column foundation - Retaining walls, Raft, Pile foundation, cantilever, & combined footing Conceptual understanding of long span structures, space frames, Geodesic domes, Vierendeel Girders, portal frames, catenary and pneumatic structures, shell structures	
Method:	Case studies & documentation of building elements & structure within an architectural context. Analysis of elements through models. Studio Exercise.	
REFERENCES:		
Sr. No.	Title	Author
01.	Building Construction	Moorthy
02.	Building Construction	Ramannathan
03.	Building Construction	B.C. Punamia
AR 2503 STRUCTURES-IV (L=1, S=0, W=2) CREDITS = 02		
INTERNAL ASSESSMENT(TERMWORK/EXERCISES) =50		CONTACT HRS/WK = 03
UNIVERSITY EXAMINATION (WRITTEN) =50		
Focus :	Understanding Steel Structures	
Contents:	Understanding types of joints in steel structures, riveted, welded and bolted joints(No examples) Types of steel sections and their properties Use of code of special practice for Steel members (Indian Standards-IS 800-2007 Introduction to structural steel, Rolled steel sections, Criteria for selection of steel sections for design. Design and Detailing of a steel structure Analysis of Tension members, compression member & flexural member. Concept of built up beams and columns – recommended uses. Concept of lacings, battening & importance of bracings. Introduction and analysis of footings for steel columns.(Design of Slab base only) Conceptual study of general connections – Beam to beam connections – Beam to column connections – column to column connections – column to foundation connection.	
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.	

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AR 2504 HISTORY OF ARCHITECTURE-III		(L=1,S=0, W=2)	CREDITS = 02
INTERNAL ASSESSMENT(TERM WORK /EXERCISE) =50			CONTACT HRS/WK = 03
UNIVERSITY EXAMINATION (WRITTEN) =50			
Focus :	To encourage analytical studies in architectural history from the information base provided in earlier semesters.		
Contents:	Contemporary developments in Architecture in India and world over. Analyzing the roots of the modern movement. Issues of Contextuality, Relevance, identity & meaning of architecture in contemporary cultures. Beginning of Modernism – Europe and America; modern movement and the international style modern masters ; Post modernism & contemporary development.		
Method :	The course should be dealt with as a Seminar Course with individual or group seminar presentations on various issues. Guided self-study in an analytical mode should be emphasized.		
REFERENCES:			
Sr. No.	Title	Author	
01.	History of Architecture	Spiro Kostof	
02.	Architecture and its interpretation	Juan Bonta	
03.	History of Modern Arts : Painting, Sculpture, Architecture	H.H.Arnason	
AR 2505 ACOUSTICS			
		(L=2, S=0, W=0)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50			CONTACT HRS/WK= 02
UNIVERSITY EXAMINATION (THEORY) = 50			
Focus :	Understanding sound control as an important element in creating comfortable functional spaces.		
Contents :	Sound -Properties of Sound , room Acoustics . Acoustical defects, sound absorbing materials and sound proof construction. Reverberation, Reverberation time for speech and music and its calculation. Acoustical requirement of various building type. Understanding Auditorium design – defects, ways of overcoming these defects. Noise Control : Means and measures for control, noise insulation, noise control requirements, constructional details and performance. Environmental Noise Control		
Method :	Mainly lecture based. Analysis of Live Case Studies of Sound spaces like auditorium, theatre, conference room, etc.		
REFERENCES:			
Sr.No.	Title	Author	
01.	Environmental Acoustics & Arch. Design	Leshi L.Dodle	
02.	Architectural Acoustics	David Egan	
03.	Design for Good Acoustics	J.E.Moore	

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AR 2506 QUANTITIES AND SPECIFICATIONS (L=2, S=0, W=2)		CREDITS =03
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50		CONTACT HRS/WK= 04
UNIVERSITY EXAMINATION (THEORY) = 50		
Focus :	Understanding Quantity Surveying & Estimate preparation.	
Contents :	<p>Specification : Specification of different building items - general specification and detailed Specification.</p> <p>Rate Analysis: Meaning, Importance, Purpose and use, factors affecting rate analysis. Rate analysis of major items of building work. Factors affecting, cost of Work, task work general information regarding S.O.R.</p> <p>Estimates : Method of computing quantities, mode of measurement of all items of work, units of measurement IS 1200.</p> <p>Estimates of different items of work:-</p> <ul style="list-style-type: none"> * Compound wall. * Small residential building 1 room with verandah. * Small residential building with 2 room kitchen with Bath W.C. * Two storied residential building. * R.C.C. work column, flooring, Beam - T Beam, Slab - One way/Two way; Slab including centering, shuttering & reinforcement. * Steel truss. * Material requirement for above items including Brick work; R.C.C.; Wooden items; doors, windows, Glass. * Measurement Book its entry checking and preparation of Bill etc. standard M.B. <p>Term Work : Over and above the mentioned items, Estimate of Septic Tank, Soak Pit, Sanitary item – Plumbing, Electrification. Rate analysis of all major item to be prepare</p>	
Method :	Lectures, practicals, demonstrations, exercises	
REFERENCES:		
Sr.No.	Title	Author
01.	Estimation & Valuation	B.N.Dutta
02.	Estimation & Valuation	Rangwala
03.	Estimation & Valuation	Chakravarti
AR 2507 GREEN & SMART BUILDING DESIGN CONCEPTS (L=2, S=0, W=0)		CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50		CONTACT HRS/WK= 02
UNIVERSITY EXAMINATION (THEORY) =50		
Focus :	Getting acquainted with green concepts in general and knowing design strategies for high performance green/energy efficient buildings/sites	
Contents:	<p>Introduction to sustainability, Green buildings & intelligent buildings, smart buildings, impact of building construction/industry on environment,</p> <p>Methods and tools of building assessment, the green building process, green rating systems and documentation, site and landscape strategies, building energy system strategies, material selection strategies, Indoor environmental quality, carbon accounting, green building codes; energy management systems</p>	
Method:	Theory, case studies and analysis	

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AE 2508 ELECTIVES -V		(L=0, S=0, W=4)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100			CONTACT HRS/WK= 04
Focus :	To help students in exploring their aptitudes and in developing skills in fields of their choice.		
Contents :	<p>A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time :</p> <p>AE 2508/1 – Creative Writing AE 2508/2 – Appreciation of Art through Literature AE 2508/3 – Sustainable Development Goals AE 2508/4 – Architectural Futures AE 2508/5 – Product Design AE 2508/6 – Sustainable Architecture AE 2508/7 – Bio-mimetic Architecture AE 2508/8 - Advanced Climatic design AE 2508/9 – Artificial illumination AE 2508/10-Appreciation of Music</p>		
Method :	Portfolio and Project Submission.		
B.Arch-III: SEMESTER VI			
AR 2600 RELATED STUDY PROGRAMME			CREDITS = 02
INTERNAL ASSESSMENT (TERM WORK) =100			
Focus	To enhance observation and understand detailing of high rise/ typical structures.		
Content	Visit/s to site/s to contemporary; sketching, constructional details, site planning features, natural landforms and landscape		
<hr/>			
AR 2601 DESIGN STUDIO - VI		(L=0,S=14,W=0)	CREDITS =10
INTERNAL ASSESSMENT (TERM WORK)		=50	CONTACT HRS/WK=14
UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/ VIVA) =50			
Focus :	Architectural Detailing And Execution Drawings.		
Contents :	<p>Execution drawing systems and methods. Trade literature, detailing methods, architectural working drawings Choice of materials, fixtures, fittings, availability and constructional feasibility. Integration of building systems and services. Detailed drawings to include all components of building like doors, windows, lifts, staircases elevators etc.</p>		
Projects :	<p>Construction drawings of previous semester design project (part or full) including specifications & estimations. Additional design project (small) may be taken alongside for development to complete architectural detailing. Full set of working drawings for the project</p>		
Skills :	<p>Construction drawings & models. Specification writing, Computation of qualities & costing.</p>		

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REFERENCES:		
Sr. No.	Title	Author
01.	Architectural detailing	
02.	Landscape detailing	
03.	Building Construction Illustrated	Francis D.K. Ching
AR2602 SITE PLANNING AND LANDSCAPE DESIGN (L=1, S=3,W=0) CREDITS =03		
INTERNAL ASSESSMENT(EXERCISES) = 50		CONTACT HRS/WK =04
UNIVERSITY EXAMINATION = 50		
Focus :	Principles of Landscape design, its techniques and application. Understanding Ecology, Ecosystem, environmental conservation	
Content :	Ecology, Environment, Components, Ecosystem at various levels, conservation of natural resources, rainwater harvesting Elements of Landscape: Landforms, plant materials, water, rocks, lighting etc. Types of Soils, plant materials (trees, shrubs, ground covers, creepers, flowering and non-flowering rocks and stones, water bodies. Surfacing Materials, landforms, manmade elements. Historical and contemporary attitudes to landscape in Indian and other context. Principles of landscape design: surfacing, enclosure vistas, visual corridor, composition of plant and other material, etc. Preparing Landscape design presentation drawing (using symbols etc.)	
Method :	Studio Exercise, Site Visit, Seminar, Presentation etc. Design assignment may be done as part of Studio project.	
REFERENCES:		
Sr. No.	Title	Author
01.	Site Planning	Kevin Lynch
02.	Time Savers' Standard for landscape Architects	
03.	Introduction to Landscape Architecture	Michael Laurie
04.	Landscape Graphics	Van Nostrand Publication
05.	Plan Graphics	Van Nostrand Publication
06.	Tropical Garden Plants	Bose & Chaudhary.
AR 2603 BUILDING TECHNOLOGY - VI (L=2,S=3, W=0) CREDITS =04		
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50		CONTACT HRS/WK = 05
UNIVERSITY EXAMINATION = 50		
Focus :	Understanding construction process of Interior Construction and material use.	
Content :	Interior Constructional details and selection of finishing materials Partitions / Panelling False Ceilings Elevators, Escalators Cabinets and Furniture. Kitchen platform Internal/External finishes Glazing	

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Method	Case Studies, Site Visits, Trade Literature Collection Studio exercises.	
REFERENCES:		
Sr.No.	Title	Author
01.	Graphic guide to Interior Design	Van Nostrand Publication
02.	Construction for Interior Designers	Ronald Ashcroft
03.	Building construction Illustrated	Francs D.K. Ching
AR 2604 STRUCTURES-V (L=1,S=0,W=2) CREDITS =02		
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50		CONTACT HRS/WK = 03
UNIVERSITY EXAMINATION = 50		
Focus :	Understanding Complex Structures	
Content :	<p>Understanding complex structural systems, Concept of structural failure and safety of structures, Types of failure in various structures, Causes of failure, Evaluation of damage</p> <p>Pre stressed concrete structure: conditions for adopting of pre stressed concrete beams and girders. Basic concepts, Advantages, Materials required, Systems and methods of Pre-stressing, Analysis of sections, Stress concept, Losses of pre-stressing</p> <p>Earthquake forces-Fundamentals, causes, types, parameters</p> <p>Concept of earthquake resistant structure and relevant IS Code</p> <p>Philosophy of Earthquake Resistant design(NPEEE-Earthquake Tips)</p> <p>Understanding of Ductile Detailing of RCC Structure</p> <p>Theoretical concepts, specifications and Selection criteria for structural system like arches, folded plates, cable structures, shell structures, types of shells, circular and rectangular water tanks. Retaining walls, diaphragm, basement walls, flat slabs, Grid floor, large span girders in RCC and Steel, RCC box girders, plate girders, castellated sections, Silos and bunkers</p>	
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.	
AR 2605 BUILDING REGULATIONS (L=1,S=0,W=0) CREDITS = 01		
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50		CONTACT HRS/WK = 01
UNIVERSITY EXAMINATION = 50		
Focus :	Regulations for development control and quality as a means of ensuring minimum standards of Building performance and environmental quality.	
Content :	<p>Need and rationale for development and building control, prevailing legislation (various Acts) under which Rules and Regulations have been worked out, National Building Code.</p> <p>Definitions and explanation of various terms like Act, Rules, Regulation, Development Plan, Planning Authority, Local Authority, Built-up Area, Building Unit, FSI / FAR, Plot coverage, Margins, Setbacks, Development permissions, occupancy certificate etc.</p> <p>General development requirements and regulations in Gamtal and Revenue Survey areas, for Industrial Areas, Low cost Housing and other special structures.</p> <p>Procedure for securing Development permission and documents required.</p>	
Method :	Mainly lecture-based with illustrations.	

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REFERENCES:		
Sr. No.	Title	Author
01.	COMPREHENSIVE GDCR	GOVT. PUBLICATION
02.	BUILDING REGULATIONS (AVKUDA/VUDA)	GOVT. PUBLICATION
03.	Gujarat Town Planning and Urban Development Act 1976	GOVT. PUBLICATIONS
AR 2606 BUILDING ECONOMICS (L=1, S=0, W=3) CREDITS = 01		
INTERNAL ASSESSMENT(TERMWORK/EXERCISE) = 50		CONTACT HOURS/WK =01
UNIVERSITY EXAMINATION(Theory) = 50		
Focus :	Understanding economic process in society and the economics of building housing etc. Problem of economics, Market economy, Wants vs Means	
Content :	Basic concepts of the economics, demand and supply economic cycle, different types of economics, traditional and modern approaches. Production process, need-demand and supply, economics of scale, Forecasting demand. Economics of building industry, Housing markets, Land Markets, concept of affordability, invisible law theory, price control.	
Method :	Assignments, Article presentation	
REFERENCES:		
Sr. No.	Title	Author
01.	Building Economics	Rosale T. Ruegg
AR 2607 BUILDING SERVICES-II (L=2, S=0, W=0) CREDITS =02		
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50		CONTACT HRS/WK= 02
UNIVERSITY EXAMINATION(WRITTEN) =50		
Focus :	(A) Building Electrical Services, Communication Systems and Air conditioning. (B) Mechanical Circulation, automated system, (C) Artificial water bodies (SWIMMING POOLS).	
Content :	(A) Electrical Services - Power Connection, A.C. & D.C., conduits, distribution board and fuses, Wiring System (concealed & open) fixtures, design of layout and symbols for representation. Communication systems (telephone, fax, EPABX etc.) and their layouts and connections. (B) Air conditioning and mechanical ventilation, Importance of Air-conditioning, Types of A/C., components of an A.C. system. , ducting, layout and design drawings. ARSCUE treatment. Lifts: General design, Classification & Installations of Lifts. NBC norms & guidelines, capsule lift; Escalators Elevators, Moving pumps and walks. Automated systems: Alarm systems, automatic lighting and A.C. systems, door closing / opening etc. (C) Swimming pools, garden pools, fountains system	
Method :	Mainly lecture-based, illustrations & case studies. Layout, installation in studio project is discussed.	

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AE 2608 ELECTIVES -II		(L=0, S=0, W=4)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100			CONTACT HRS/WK= 04
Focus :	To help students in exploring their aptitudes and in developing skills in fields of their choice.		
Content :	<p>A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time :</p> <p>AE 2608/1 – Creative Writing AE 2608/2 – Appreciation of Art through Literature AE 2608/3 – Sustainable Development Goals AE 2608/4 – Architectural Futures AE 2608/5 – Product Design AE 2608/6 – Sustainable Architecture AE 2608/7 – Bio-mimetic Architecture AE 2608/8 - Advanced Climatic design AE 2608/9 – Artificial illumination AE 2608/10-Appreciation of Music</p>		
Method :	Portfolio and Project Submission.		
B.Arch-IV: SEMESTER VII			
AR 2701 OFFICE TRAINING		(L=0, S=07, W=0)	CREDITS = 25
INTERNAL ASSESSMENT(T.W.)		= 50	CONTACT HRS/WK = 35-40
UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA) = 50			
Focus :	To make students aware of and to inculcate a sense of appreciation in all the operations that take place- right from the preliminary sketch design to the completion of the project.		
Contents:	<p>The students must complete a minimum of sixteen-eighteen weeks (minimum 90 working days) of training in a registered architectural practice firm. They are required to participate in each activity of the organization for a minimum period of one week.</p> <p>Maintaining a weekly report file and recording their activities during training period in detail The student is also expected to do case study of one project that he is associated with, during his training period. This study should include a complete documentation and analysis of the architectural / structural and constructional aspects of the project. Details which are deemed confidential by the firm should not be included in the study report, which must be submitted along with the Weekly Report File.</p> <p>A student is expected to work on preparation of Municipal drawings, basic knowledge about documentation, tender work, marking of layout on site, sanitary fittings, office administration etc.</p>		
Method:	A student shall work in well established private architect's office, or government, semi – government office related to architectural work.		

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B.Arch-IV: SEMESTER VIII		
AR 2801	DESIGN STUDIO - VIII	(L=0,S=18,W=0)
INTERNAL ASSESSMENT (TERM WORK)		=50
UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/ VIVA)		=50
Focus :	Housing Design	
Contents :	Study of Housing designs & Urban neighbourhoods to understand the nature and character of user group, historical development and future growth trends, socio-economic and environmental characteristics, issues of density, land use, ground coverage. Analysis of land use, ground coverage, density, building line, housing typology, transport and circulation systems, form & character of built- environment and open spaces. Relationship between socio-economic & cultural aspects and physical fabric of the settlement. Influence of climate and geo-physical attributes of the location.	
Projects :	Housing design for a rapidly urbanizing settlement in the vicinity or a sector of a large urban area.	
Skills :	Analysis of multiple aspects of emergent design pattern of settlement, synthesis of diverse requirements. Resolution of diverse demands/requirements. Application of social, environmental, economic and political issues in the shaping of settlements.	
AR2802	DESIGN SEMINAR	(L=0, S=0,W=4)
INTERNAL ASSESSMENT(EXERCISES)		= 50
UNIVERSITY EXAMINATION		= 50
Focus :	Theory, techniques and issues in design of residential areas.	
Content :	Definition and scope of Housing, residential areas as a part of urban areas. Structure and elements of Residential Areas - Built-form, Open spaces and Circulation, Infrastructure & Amenities Hierarchy of linkages, Concepts of density - gross density, net residential density, areas per person. Building Typologies and forms, relationship of built form density, F.S.I. etc. Theories & approaches to residential area, design issues in Housing.	
Method :	Basic information to be in form of lectures with case studies and illustrations. Students are to examine views related to housing design through assignments concluding with a seminar presentation.	
REFERENCES:		
Sr. No.	Title	Author
01.	House Form and Culture	Amos Rapoport
02.	Urbanization Primer	Horatio Caminos
03.	Residential Open Spaces	Vastu-Shilp Foundation
04.	Urban Pattern	Gallion
05.	The New Landscape	Charles Correa

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AR 2803 BEHAVIOURAL SCIENCE		(L=2,S=0, W=0)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50		CONTACT HRS/WK = 02	
UNIVERSITY EXAMINATION = 50			
Focus :	<p>(A) Developing an awareness of how social dimensions play an important role in shaping Built Environment.</p> <p>(B) To develop an awareness towards the Psychological responses created due to particular type of built environment.</p>		
Content :	<p>(A) SOCIOLOGY</p> <p>Essential elements of society – Bio - Socio – Cultural societies. Characteristics of Human Society. Social Norms, their origin & classification Status & role, ascribed & Achieved statuses, social esteem Primary groups, and secondary groups. Family & its problems Characteristics of Urban Social life. Process of Urbanization in India, Urbanization & Industrialization. Social issues of Urban life.</p> <p>(B) ENVIRONMENTAL PSYCHOLOGY:</p> <p>Psychology - definition and scope. Environmental Psychology, its objectives. Types of environment; Built environment - factors contributing to its efficiency (colour, ambient aspects, size and shape) personal variables effecting environmental psychology, furnishings. Personal space, Defensible space and Territoriality. Housing - Single family and multi-family dwelling; behaviour in public housing areas. Institutional buildings - hospitals, mental institutions, penal institution Offices- behaviour in workplaces: landscaped offices vs traditional office. Environment as a source of a threat and Role of an Architect.</p>		
Method	Lectures, seminars, case-studies		
REFERENCES:			
Sr.No.	Title	Author	
01.	Environmental Psychology	Norman Heimstra	
02.	Designing for Human Behaviour	Jon Lang	
03.	Creating an Architectural Theory	Jon Lang	
04.	Environmental Interaction	David Canter & Peter Stringer	
05.	Defensible Space	Oscar Newman	

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AR 2804 CONSTRUCTION PROJECT MANAGEMENT		(L=1,S=0,W=2)	CREDITS =02
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50			CONTACT HRS/WK = 03
UNIVERSITY EXAMINATION = 50			
Focus :	Understanding project planning and management		
Content :	Nature of construction projects, need for proper planning and Management Processes and Equipment used. Techniques for scheduling : bar charts, Network diagram, project Evaluation and Review Techniques, Critical path Method. Practical implementation and application of PERT and CPM to typical construction projects. Maintenance of records, bills and method of making payments.		
Method :	Lecture based with series of exercises on various management techniques.		
AR 2805 HISTORY OF (URBAN) TOWN PLANNING (EKISTICS)		(L=2,S=0,W=0)	CREDITS = 02
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50			CONTACT HRS/WK = 02
UNIVERSITY EXAMINATION = 50			
Focus :	To acquaint the students with the development in the field of Town Planning/Urban Design / Settlement design		
Content :	History of Town Planning/Settlement design/Urban design. Theories and approaches. Examples of various historical experiments across the world. Developments in India from early times to the present day. Vedic Planning concept, Islamic planning, western planning. Role of Sir Patrick Geddes & others in planning processes Contemporary practices-evolution of sustainable, smart, resilient cities Role of Urban laws in city making. Development plan & its procedure.		
Method :	The course is mainly intended to be lecture based, with case studies and illustrations.		
REFERENCES:			
Sr. No.	Title	Author	
01.	Human Settlements	Dr.H.D.Kopardikar &G.R.Diwan	
02.	History of Urban Form	AEJ Morris	
03.	Indian Cities in Arid west	K.B.Jain & Minakshi Jain	
04.	Architecture, Time & Eternity	Adrian Snodgrass	
05.	Mayamatam Part I & II	Indira Gandhi Uni.public.	
06.	Ancient & Medieval Town Planning in India	Prabhakar V. Begde	

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AR 2806 INFRASTRUCTURE SERVICES		(L=2, S=0, W =0)	CREDITS =02										
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS) =50		CONTACT HRS/WK= 02											
UNIVERSITY EXAMINATION (WRITTEN/ THEORY EXAM.) = 50													
Focus :	Settlement Infrastructure Services												
Content :	<p>Water Supply for large scale settlement; including Rainwater harvesting. Supply systems, layout, intake units, and storage.</p> <p>Water purification & disinfection with spatial requirement for the same.</p> <p>Waste & Waste water handling.</p> <p>Types of wastes: storm water, garbage, sullage, sewage, Industrial wastes.</p> <p>Different types of drains and sewer, sewer appurtenances.</p> <p>Handling by septic tank and alternative methods.</p> <p>Sewage treatment works, treatment units and their spatial requirements.</p> <p>Sewage disposal by different method.</p> <p>Roads - types, alignment, width and carriage width of roads, shoulders, curves, super-elevation, curbs etc.(Geometric Design).</p> <p>Parking spaces, rules & general requirements.</p> <p>Fire fighting-requirement for fire fighting, fire hydrants, their location & specifications.</p> <p>Lighting-arrangement of street lighting, density, spacing height etc., Location of transformer substation & their spatial requirements.</p> <p>Telecommunication-various modes of telecommunication, relevance with planning, and precautions to be taken while planning including spatial requirements.</p>												
Method :	Lectures, seminars, case studies												
REFERENCES :													
Sr.No.	Title	Author											
1	Water Supply & Sanitary Engineering	G.S.Birdie											
2	Public Health Engineering	Rangwala											
3	Building Services	F.Halls											
4	Road & Transportation Engineering	S.K.Khanna											
AE 2807 ELECTIVES -VII		(L=0, S=0, W=3)	CREDITS =02										
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100		CONTACT HRS/WK= 03											
Focus :	To help students in exploring their aptitudes and in developing skills in fields of their choice.												
Content :	<p>A number of subjects shall be offered depending on faculty availability.</p> <p>Students may register for any one of the offered courses for the semester.</p> <p>Courses that may be offered from time to time :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">AE 2808/1 – Architectural Journalism</td> <td style="width: 50%;">AE 2808/2 – Slum redevelopment</td> </tr> <tr> <td>AE 2808/3 – Structures of Special buildings</td> <td>AE 2808/4 – Digital Fabrication</td> </tr> <tr> <td>AE 2808/5 – Product Design</td> <td>AE 2808/6 – Sustainable Architecture</td> </tr> <tr> <td>AE 2808/7 – Bio-mimetic Architecture</td> <td>AE 2808/8 - Advanced Climatic design</td> </tr> <tr> <td>AE 2808/9 – Artificial illumination</td> <td>AE 2808/10- Advanced computer graphics</td> </tr> </table>			AE 2808/1 – Architectural Journalism	AE 2808/2 – Slum redevelopment	AE 2808/3 – Structures of Special buildings	AE 2808/4 – Digital Fabrication	AE 2808/5 – Product Design	AE 2808/6 – Sustainable Architecture	AE 2808/7 – Bio-mimetic Architecture	AE 2808/8 - Advanced Climatic design	AE 2808/9 – Artificial illumination	AE 2808/10- Advanced computer graphics
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AE 2808/7 – Bio-mimetic Architecture	AE 2808/8 - Advanced Climatic design												
AE 2808/9 – Artificial illumination	AE 2808/10- Advanced computer graphics												
Method :	Portfolio and Project Submission.												

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B.Arch-V: SEMESTER IX		
AR 2901	DESIGN STUDIO - IX	(L=0, S=21, W=0) CREDITS = 15
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW)		= 50 CONTACT HRS/WK = 21
UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA)		= 50
Focus :	To evaluate the ability of students to deal with and resolve complex issues into a valid expression of architectural character and contextuality. Focus is on the architecture for the collective design of Settlement level Institution/Housing/Amenity.	
Contents:	Architecture for the Public Domain is emphasized through detailed analysis & study of a town/ or parts. Design resolution for a project in the urban fabric selected within a given town, with the intention of developing individual designs for diverse projects within on overall conceptual development for the settlement. A comprehensive resolution of all aspects of the project- detailed design, control mechanisms, structure and materials, landscaping etc. must be stressed.	
Projects:	Projects could be of the following nature : Urban infill, Slum Up-gradation, Conservation and Revitalization of core areas, new development etc.	
Skills :	Reading urban fabric, urban analysis, urban graphical representation	
REFERENCES:		
Sr. No.	Title	Author
1	Concise Townscape	Gordon Cullen
2	Urban Design as Public Policy	Jonathan Barnett
3	Finding Lost Space	Roger Trancik
4	Urban Space	Rob Krier
5	The Urban Design Process	Hamid Shirvani
6	Cities of Tomorrow	Le Corbusier
7	The New Theory of Urban Design	Christopher Alexander
AR 2902	DESIGN SEMINAR	(L=0,S=0,W=4) CREDITS = 02
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW)		= 50 CONTACT HRS/WK = 04
UNIVERSITY EXAMINATION		= 50
Focus :	Theory, techniques and issues in design of Public Realm.	
Contents :	Brief history of Urban design, its scope and examples. Basic concepts, principles and techniques. Theories and approaches of eminent designers and theoreticians with illustrative cases. Structure and elements of urban areas, nature and development. Contemporary approaches to urban design. Issues and aspects of urban design.	
Method:	The course is expected to provide the inputs required for the Design Studio through lectures and discussion, also encourage enquiry and investigation into existing literature by the student to elaborate on contemporary issues and cases in the form of a term paper which can be presented in a class seminar	

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REFERENCES:		
Sr.No.	Title	Author
01.	Concepts of Urban Design	David Gosling
02.	Design of Cities	Edmond BARon
03.	Image of the City	Kevin Lynch
04.	Introduction to Urban Design	Paul Spriegen
AR 2903 THESIS ORIENTATION (L=1,S=3,W=0) CREDITS = 03		
INTERNAL ASSESSMENT (T.W./PERIODIC REVIEW) = 50		CONTACT HRS/WK = 04
UNIVERSITY EXAMINATION = 50		
Focus :	Understanding the methodological approach to carry out a research based programme in order to design an architectural project involving a set of complex issues.	
Contents:	Nature and function of research, scientific research, meaning of research in the field of architectural design. Pure and applied research. Stages of research and design; design and research methodology Techniques of data collection Forms of research reporting, structure of a report Writing skills, presentation aids Use of primary and secondary references, bibliography, notations, cross reference etc. Nature of an undergraduate thesis, its structure and other requirements.	
Method:	The course must be conducted as a mix of lectures/discussions with a number of assignments and exercises to impart the skills necessary for carrying out the dissertation. Preparation of a viable proposal for the next semester's dissertation work is expected by the end of the semester.	
REFERENCES:		
Sr. No.	Title	Author
01.	Inquiry by Design	John Ziesel
02.	Research Methods	
AR 2904 CONSERVATION (L=2,S=0,W=0) CREDITS = 02		
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50		CONTACT HRS/WK = 02
UNIVERSITY EXAMINATION = 50		
Focus :	Conservation of historical monuments, buildings and sites.	
Contents :	Architectural Conservation: Need and Importance of conservation of historical monuments, buildings. Urban Conservation: Identification of areas for conservation. Approaches and techniques. Landscaping, maintenance and management of conserved areas or buildings. Case studies from India and abroad. Restoration of old buildings - materials used, techniques and equipment. Deterioration and preventive measures. Funding agencies, NGOs, Government and other institutions involved in Conservation, Grading and Listing of Conservation property, Ethics of Conservation, Glossary of terms, Documentation, significance and types	
Method:	Case studies, illustrations, assignments & presentation	
REFERENCES:		
SR.NO.	TITLE	AUTHOR
01.	Manual for Conservation	Bernard Feilden
02.	Conservation of Historic Building	Bernard Fielden

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AE 2905 ELECTIVES -VIII		(L=0, S=0, W=3)	CREDITS =03
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100			CONTACT HRS/WK= 03
Focus	To help students in exploring their aptitudes and in developing skills in fields of their choice.		
Content	<p>A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time :</p> <p>AE 2908/1 – Architectural Journalism AE 2908/2 – Slum redevelopment AE 2908/3 - Theatrics AE 2908/4 – Digital Fabrication AE 2908/5 – Product Design AE 2908/6 – Sustainable Architecture AE 2908/7 – Bio-mimetic Architecture AE 2908/8 - Advanced Climatic design AE 2908/9 – Artificial illumination AE 2908/10- Advanced computer graphics</p>		
Method	Portfolio and Project Submission.		
B.Arch-V: SEMESTER X			
AR 21001 THESIS		(L=0,S=30,W=0)	CREDITS = 20
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50			CONTACT HRS/WK = 30
UNIVERSITY EXAMINATION (JURY/CRIT) = 50			
Focus :	Inquiry by Design / Research		
Contents :	<p>The Thesis is intended to evaluate the student's capacity and maturity in the field of Architecture. Study in the chosen field to be carried out in two stages :</p> <p>A) Data collection & analysis - An in depth investigation into the aspects of the chosen area. - Analysis of data, inferences to establish underlying principles. - Reviews of existing practices / theory in view of current contexts.</p> <p>B) Design / Research - Prepare detailed programme - Design or Research on basis of studies carried out in Part A</p>		
AR 21002 PROFESSIONAL PRACTICE		(L=2,S=0,W=0)	CREDITS = 02
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50			CONTACT HRS/WK = 02
UNIVERSITY EXAMINATION = 50			
Focus :	Creating an awareness of the role & responsibilities of an architect		
Contents :	<p>Role of an Architect, responsibilities and liabilities with respect to client and society. Duties, powers and functions. Architects Act 1972- aims, objectives, provisions for registration with Council of Architecture. Rules and regulations under the Act, Indian Institute of Architects and its role. Professional work</p>		

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	<p>and scale of fees, mode of working and payments, phasing of projects etc. Architectural Competitions- need procedures for conducting, rules and regulations etc. Arbitration - settling of disputes through arbitration, the Arbitration Act, procedures and method of working. Role of an architect as an Arbitrator. Valuation of properties - land and buildings, role of architects as approved valuers. Methods & Techniques for valuation. Tendering, contracts and articles of agreement, execution of contract, appointment of clerk of works, site supervisor, contractor and subcontractor etc. Office Management: Types of firms and legal implications. Accounts and Finance, procedures for loans. Maintaining office records. Office personnel and legal provisions regarding employees of small firms. Settling problems and disputes arising out of contract conditions extra items variation in work quality, insurance and compensation of workers etc.</p>
Method:	The course must be conducted as a mix of lectures/Expert Talks by practicing Architects on their approaches /discussions with a number of assignments and exercises.
AE 21003 ELECTIVES -IX (L=0, S=0, W=3) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100 CONTACT HRS/WK= 05	
Content	<p>A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time :</p> <ul style="list-style-type: none"> AE 21002/1 – Architectural Journalism AE 21002/2 – Slum redevelopment AE 21002/3 – Vernacular Architecture AE 21002/4 – Alternative Building Technologies AE 21002/5 – Interior Design AE 21002/6 – Sustainable Architecture AE 21002/7 – Bio-mimetic Architecture AE 21002/8 - Advanced Climatic design AE 21002/9 – Artificial illumination AE 21002/10- Entrepreneurship

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